

MATERIAL SAFETY DATA SHEET

1. SUBSTANCE AND SOURCE IDENTIFICATION

National Institute of Standards and Technology
Standard Reference Materials Program
100 Bureau Drive, Stop 2320
Gaithersburg, Maryland 20899-2320

SRM Number: 2585
MSDS Number: 2585
SRM Name: Organic Contaminants
in House Dust

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Description: This Standard Reference Material (SRM) is a house dust intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, chlorinated pesticides, and polybrominated diphenyl ether (PBDE) congeners in house dust and similar matrices. All of the constituents for which certified, reference, and information values are provided in SRM 2585 were naturally present in the dust material before processing. A unit of SRM 2585 consists of one bottle containing approximately 10 g of dust.

Substance: Laboratory preparation of "house dust" containing traces of organic contaminants.

Other Designations: Not applicable.

2. COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS

Component	CAS Registry	EC Number (EINECS)	Nominal Mass Fraction (%)
House dust *	Not applicable	Not applicable	Not applicable

* **NOTE:** The matrix of this material contains traces of organics (PAHs, PCB congeners, chlorinated pesticides, and PBDE congeners), many of which have been reported to have toxic, mutagenic, and/or carcinogenic properties, and should be handled with care. The total concentration of the PAHs, PCB congeners, chlorinated pesticides, and PBDE congeners in this material is less than 0.1 %, which is below the reportable limit (0.1 % for chemicals identified as carcinogens) required by OSHA according to 29 CFR 1910.1200 (g)(2)(i)(C)(1) for individual MSDS information. For the list and actual concentration of these compounds, refer to the corresponding NIST Certificate of Analysis.

Index, R/S Phrases (EU): Not applicable for this laboratory preparation.

3. HAZARDS IDENTIFICATION

NFPA Ratings (Scale 0–4): Health = Not determined Fire = 0 Reactivity = 0

Major Health Hazards: Potential cancer hazard in humans.

Physical Hazards: Not applicable.

Potential Health Effects (short term exposure)

Inhalation: May cause irritation to the mucous membranes and respiratory tract. May cause allergic reactions.

Skin Contact: May cause irritation and allergic reactions.

Eye Contact: May cause irritation.

Ingestion: May cause digestive system disturbances.

Listed as a Carcinogen/Potential Carcinogen¹

	Yes	No
In the National Toxicology Program (NTP) Report on Carcinogens	_____	<u>X</u>
In the International Agency for Research on Cancer (IARC) Monographs	_____	<u>X</u>
By the Occupational Safety and Health Administration (OSHA)	_____	<u>X</u>

4. FIRST AID MEASURES

Inhalation: If adverse effects occur, remove to uncontaminated area. Give artificial respiration, if not breathing, by qualified personnel. Get immediate medical attention.

Skin Contact: Rinse affected area with copious amounts of water for at least 15 minutes while removing contaminated clothing. Get medical attention if needed.

Eye Contact: Immediately flush eyes, including under the eyelids, with copious amounts of water for at least 15 minutes. Get immediate medical attention.

Ingestion: If a large amount is swallowed, get immediate medical attention.

5. FIRE FIGHTING MEASURES

Fire and Explosion Hazards: None.

Extinguishing Media: Regular dry chemical, carbon dioxide, water, and regular foam.

Fire Fighting: Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Wear full protective clothing and NIOSH-approved self-contained breathing apparatus (SCBA).

Flash Point (°C): Not Applicable **Autoignition (°C):** Not Applicable **Method:** Not Applicable

Flammability Limits in Air (Volume %) – Upper: Not Applicable **Lower:** Not Applicable

Flammability Class (OSHA): Not Applicable

6. ACCIDENTAL RELEASE MEASURES

Occupational Release: Collect spilled material in appropriate container for proper disposal. Refer to Section 13, "Disposal Considerations".

7. HANDLING AND STORAGE

Storage: Store in its original bottle at temperatures less than 30 °C away from direct sunlight. Store and handle in accordance with all current regulations and standards on dust producing materials. Wear safety goggles. Wear chemical resistant clothing and gloves. An eye wash station and washing facilities should be readily available near handling and use areas.

Safe Handling Precautions: This material is a naturally occurring house dust collected from a number of locations and may contain constituents of unknown toxicities. Therefore, caution and care should be exercised during its handling and use. Avoid generating and inhaling dust when handling.

¹ The matrix of this material is a house dust particulate collected in an urban area. This material contains traces of organic compounds (PAHs, PCB congeners, chlorinated pesticides, and PBDE congeners), many of which are suspected or have been reported to have toxic, mutagenic, and/or carcinogenic properties, and should be handled with care. The carcinogens in this material have a total concentration < 0.1 % and **DO NOT** require individual MSDS information under current regulations [OSHA, 29 CFR 1910.1200 (g)(2)(i)(C)(1)]. For the list and actual concentrations of these compounds, see the Certificate of Analysis for SRM 2585.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Household Dust: No occupational limits established.

Ventilation: Use local exhaust ventilation system.

Respirator: Use adequate respirator protection. Refer to the “NIOSH Guide to the Selection and Use of Particulate Respirators Certified under 42 CFR 84” for selection and use of respirators with organic vapor cartridges certified by NIOSH.

Eye Protection: Wear safety goggles. **DO NOT** wear contact lenses in the laboratory. An eye wash station should be readily available near handling and use areas.

Personal Protection: Wear protective clothing and chemically resistant gloves to prevent skin exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Household Dust
Appearance and Odor: white to gray/brown powder
Molecular Formula: not applicable
Relative Atomic Mass: not applicable
Density (g/cm³): not applicable
Solubility in Water: not determined
Solubility in Other Compounds: not determined

10. STABILITY AND REACTIVITY

Stability: X Stable Unstable

Stable at normal temperatures and pressure.

Conditions to Avoid: Avoid generating dust.

Incompatible Materials: None.

Fire/Explosion Information: Not applicable. See Section 5, “Fire Fighting Measures”.

Hazardous Decomposition: Thermal decomposition or combustion may produce toxic fumes.

Hazardous Polymerization: Will Occur X Will Not Occur

11. TOXICOLOGICAL INFORMATION

Route of Entry: X Inhalation X Skin X Ingestion

Household Dust (Specific Toxicity): Not determined.

Health Effects (Acute and Chronic): Adverse health effects for this laboratory preparation have not been determined. However, this material may be harmful by inhalation or ingestion. Prolonged or repeated exposure to low levels of household dust may result allergic reactions, possible accumulation in body tissues with adverse effects on the blood, endocrine and immune systems, kidneys, and reproductive system.

Organics: Many of the organics in this material are known or suspected carcinogens with mutagenic properties. Exposure to organic materials can cause cough, confusion, ataxia, headache, weakness, and dizziness. Ingestion may cause abdominal pain, nausea, vomiting, and diarrhea. Most organics are liver toxins.

Medical Conditions Generally Aggravated by Exposure: Not determined for this laboratory preparation.

12. ECOLOGICAL INFORMATION

Environmental Summary: Not applicable.

13. DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose in accordance with all applicable federal, state, and local regulations. Keep out of sewers and water supplies.

14. TRANSPORTATION INFORMATION

U.S. DOT and IATA: Exempt. Small entity laboratory preparation (Household Dust).

15. REGULATORY INFORMATION

U.S. REGULATIONS

CERCLA Sections 102a/103 (40 CFR 302.4): Not applicable.

SARA Title III Section 302 (40 CFR 355.30): Not applicable.

SARA Title III Section 304 (40 CFR 355.40): Not applicable.

SARA Title III Section 313 (40 CFR 372.65): Not applicable.

OSHA Process Safety (29 CFR 1910.119): Not applicable.

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21)

ACUTE: Not applicable.

CHRONIC: Not applicable.

FIRE: Not applicable.

REACTIVE: Not applicable.

SUDDEN RELEASE: Not applicable.

STATE REGULATIONS

California Proposition 65: Not regulated.

CANADIAN REGULATIONS

WHMIS Classification: Not determined.

EUROPEAN REGULATIONS

EU Classification (Small Entity Laboratory Preparation): Exempt.

EU Risk and Safety Phrases (Small Entity Laboratory Preparation): Exempt.

NATIONAL INVENTORY STATUS

U.S. Inventory (TSCA): Not listed.

TSCA 12(b), Export Notification: Not listed.

16. OTHER INFORMATION

Sources:

OSHA, 29 CFR 1910.1200 (g)(2)(i)(C)(1).

Disclaimer: Physical and chemical data contained in this MSDS are provided only for use as a guide in assessing the hazardous nature of the material. The MSDS was prepared carefully, using current references; however, NIST does not certify the data in the MSDS. The certified values for this material are given in the NIST Certificate of Analysis.